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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/797,056 | 03/11/2004 | Hyun-kwon Chung | 1293.1691C2 | 4699 |
| 49455 7590 06/01/2007 STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005 | | | EXAMINER STEVENS, ROBERT | |
| | | | ART UNIT 2162 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/797,056

Applicant(s)

CHUNG ET AL.

Examiner

Robert Stevens

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/384,063.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 200403, 200405, 200510
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are vague and ambiguous, and thus, their scope is indeterminable.

Regarding independent claim 1: This claim appears to be missing essential elements/steps. First, the preamble is directed to the reproduction (i.e., “playing” of AV data, but no such limitation appears within the body of the claim. Additionally, a markup document is recited as part of the AV data (see line 3), but further limitations recited the storage of only a markup document (not the AV data, see line 5), and parsing of the markup document (see lines 7-8), but the markup data was not recited as being extracted from the AV data. It is unclear what the structure of the claimed apparatus is.

Also, line 14 recites the terminology “according to an interaction”. There is no guidance as to what this terminology means, and thus the claim is vague and ambiguous.

Claims 2-6 depend upon claim 1, and therefore are likewise rejected.

Claim 1, and other claims that depend on it, are not patent eligible because these claims are vague and ambiguous, and thus, the scope of each is indeterminable.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Claussen et al. (US Patent No. 6,981,212, filed Sep. 30, 1999 and issued Dec. 27, 2005, hereafter referred to as "Claussen") in view of Michael Morrison et al. (XML Unleashed, SAM's Publishing, Indianapolis, IN, Dec. 1999, pp. 45, 146-153, 156-172, 174-179, 184-202, 206-209, 289-290, 424, 427, 431-447 and 463-467, hereafter referred to as "Morrison").

Regarding independent claim 1: Claussen teaches *An apparatus for reproducing audio and/or video (AV) data recorded on an information storage medium in an interactive mode, comprising: a reader to read the AV data, which comprises a markup document and a stylesheet, recorded on the information storage medium;* (See Claussen Abstract, discussing the processing of XML documents and the use of XSL.) *a memory to temporarily store the markup document and the stylesheet;* (See Claussen Fig. 1 #20, showing RAM.) *and a presentation engine comprising: a stylesheet parser to interpret the stylesheet and to generate a style rule/selector list,* (See Claussen Abstract, discussing the passing of a stylesheet to an XSL processor.) *a script code interpreter to interpret a script code contained in the markup*

document, (See Claussen col. 3 lines 4-10, discussing the compilation of script code.) *a document object model (DOM) logic unit to modify the document object tree and the style rule(selector) list according to an interaction with the script code interpreter*, (See Claussen col. 11 lines 15-42 discussing DOM tree processing, in the context of col. 5 lines 35-40 discussing transforming XML into a DOM.)

However, Claussen does not explicitly teach the further limitations as claimed. Morrison, though, discloses *a markup document parser to interpret the markup document and to generate a document object tree*, (See Morrison pages 289-290, in which XML Listing 15.1 is parsed to generate the tree of Figure 15.1. See also page 220 "Parsing a Document as a Tree".) *and a layout formatter/renderer to apply the stylesheet rule(selector) list to the document object tree, to generate a formatting structure based on the application of the stylesheet rule(selector) list to the document object tree, and to render the markup document based on the generated formatting structure*. (See Morrison page 184 "Templates" section and page 174 "Processing an XSL Style Sheet", discussing output generation resulting from rule/pattern matches.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Morrison for the benefit of Claussen, because to do so provided a programmer with a powerful mechanism for displaying markup language documents, as taught by Morrison in the section entitled "Styling XML for Display" on page 22. These references were all applicable to the same field of endeavor, i.e., markup language programming.

Regarding claim 2: Claussen does not explicitly teach the remaining limitations as claimed. Morrison, though, discloses *wherein the markup document parser generates the document object tree according to a rule that a root node of all nodes is set to a document node, a rule that all texts and elements generate nodes, and a rule that a processing instruction, a comment, and a document type generate a node.* (See Morrison Figure 15.1 and the paragraph following this figure on page 290, noting that the figure tree includes a root node labeled as “document” and also text, element, version, and comments nodes. Additionally, the code Listing 15.1 on page 289 shows XML code corresponding to the document tree of Figure 15., and the first line of the code includes a document type, which produces a version or processing node.)

Regarding claim 6: Claussen teaches *wherein the presentation engine further comprises a user interface (UI) controller to receive a user input and to send the user input to the DOM logic unit and/or the layout formatter/renderer.* (See Claussen col. 1 line 44 – col. 2 line 4, discussing user interaction and use of DOMs to provide web content to a user.)

5. **Claims 3-5 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Claussen et al. (US Patent No. 6,981,212, filed Sep. 30, 1999 and issued Dec. 27, 2005, hereafter referred to as "Claussen") in view of Michael Morrison et al. (XML Unleashed, SAM's Publishing, Indianapolis, IN, Dec. 1999, pp. 45,146-153, 156-172, 174-179, 184-202, 206-209, 289-290, 424, 427, 431-447 and 463-467, hereafter referred to as "Morrison") and Atmakuri et al. (US Patent Application Publication No. 2002/0069410, filed Dec. 1, 2000 and published Jun. 6, 2002, hereafter referred to as "Atmakuri").

Regarding claim 3: Claussen does not explicitly teach the remaining limitations as claimed. Atmakuri, though, discloses *wherein the presentation engine further comprises a markup document step controller to generate a 'load' event to the script code interpreter where the rendering of the markup document is completed.* (See Atmakuri page 5 code line 80, disclosing code for an "onload" event.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Atmakuri for the benefit of Claussen in view of Morrison, because to do so would have allowed a user to control a digital device, as taught by Atmakuri in the Abstract. These references were all applicable to the same field of endeavor, i.e., markup language programming.

Regarding claim 4: Claussen does not explicitly teach the remaining limitations as claimed. Atmakuri, though, discloses *wherein the markup document step controller generates an 'unload' event to the script code interpreter to terminate presenting of the markup document.* (See Atmakuri page 5 code line 80, disclosing code for an “onunload” event.)

Regarding claim 5: Claussen does not explicitly teach the remaining limitations as claimed. Atmakuri, though, discloses *a buffer memory to buffer the AV data; a decoder to decode the buffered AV data; and a blender to blend the decoded AV data and the markup document interpreted and rendered by the presentation engine, and to output the blended result.* (See Atmakuri Figure 2 showing a GUI window for playing/stopping/rewinding AV data. It was implied that such operations required buffering, decoding of AV data, and blending of AV data with the markup language document in order to “Play” the AV data.)

Art Unit: 2162

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-Patent Literature

Rule, Jeff, "Windows Media Playback in a Web Page", Web Developer's <Virtual Library>, May 7, 2001, pp. 1-9 (downloaded from: www.wdvl.com/Multimedia/Windows_Media/index3.html).

Rule, Jeff, "Windows Media: JavaScript Buttons", Web Developer's <Virtual Library>, Jun. 11, 2001, pp. 1-6 (downloaded from: www.wdvl.com/Multimedia/Windows_Media/index4.html).

"Wavexpress: Revolutionizing Broadband Media Services", © 2000-2004, pp. 1-5 (downloaded from: www.wavexpress.com/products-components5.asp).

Weaver, Alfred C., et al., "Multicast Distribution and Control for Streaming Multimedia", IECON '01, Vol. 3, Nov. 29 – Dec. 2, 2001, pp. 1806-1809.

Vander Veer, Emily A., JavaScript for Dummies, 3rd Edition, IDG Books Worldwide, Inc., Foster City, CA, © 2000, pp. 13-17 and 308-311.

Microsoft Computer Dictionary, 5th Edition, Microsoft Press, Redmond, WA, © 2002, page 179.

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| Smith et al | 2003/0028685 |
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US Patents

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| Novak et al | 7,032,177 |
| Polonsky et al | 7,072,984 |
| Markel | 7,162,697 |
| Johnson et al | 6,363,204 |
| Claussen et al | 6,981,212 |
| Evans et al | 6,990,671 |
| Humpleman et al | 6,288,716 |

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 - 2:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert Stevens
Examiner
Art Unit 2162

May 25, 2007



MOHAMMAD ALI
PRIMARY EXAMINER